

WHAT IS CLAIMED IS:

1. A method of generating a plurality of sub-codes with the same or different code rates for the input of a PLP (Physical Layer Packet) information bit stream and sequentially transmitting symbols with the sub-codes for time periods, comprising the steps of:

determining a minimum data rate by which the number of the modulation symbols of the sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for the time period; and

pruning part of the modulation symbols of the sub-code so that the number of the modulation symbols of the sub-code is equal to the number of transmittable modulation symbols for the time period, if the number of the modulation symbols of the sub-code is greater than the number of transmittable modulation symbols for the time period.

2. The method of claim 1, wherein symbol pruning is performed on second half of the modulation symbols of the sub-code.

3. The method of claim 1, wherein the modulation symbols of the sub-code are channel-interleaved symbols.

4. The method of claim 1, wherein symbol pruning for a first time period is performed on symbols of a first sub-code so that the sum of the numbers of preamble symbols and the number of the modulation symbols of the first sub-code is equal to the number of the transmittable modulation symbols, if the sum of the number of preamble symbols and the number of the modulation symbols of the first sub-code is greater than the number of the transmittable modulation symbols.

5. A method of transmitting packet data, comprising the steps of:
generating a plurality of sub-codes with the same or different code rates
for the input of a PLP (Physical Layer Packet) information bit stream;

determining a minimum data rate by which the number of the modulation
5 symbols of the sub-code generated by a predetermined modulation method is
equal to or greater than the number of transmittable modulation symbols for each
time period;

channel-interleaving the symbols of the sub-code generated at the
minimum code rate;

10 modulating the channel-interleaved symbols by the predetermined
modulation method; and

pruning part of the modulation symbols of the sub-code so that the
number of the modulation symbols of the sub-code is equal to the number of
transmittable modulation symbols for the time period, if the number of the
15 modulation symbols of the sub-code is greater than the number of transmittable
modulation symbols for the time period.

6. The method of claim 5, wherein symbol pruning is performed on
second half of the modulation symbols of the sub-code.

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7. The method of claim 5, wherein symbol pruning for a first time
period is performed on symbols of a first sub-code so that the sum of the
numbers of preamble symbols and the number of the modulation symbols of the
first sub-code is equal to the number of the transmittable modulation symbols,
25 if the sum of the number of preamble symbols and the number of the modulation
symbols of the first sub-code is greater than the number of transmittable
modulation symbols.

8. A method of transmitting packet data, comprising the steps of:
30 generating a plurality of sub-codes with the same or different code rates

for the input of a PLP (Physical Layer Packet) information bit stream;

determining a minimum data rate by which the number of the modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for each time
5 period;

channel-interleaving the symbols of the sub-code generated at the minimum code rate;

pruning part of the channel-interleaved symbols so that the number of the channel-interleaved symbols is equal to the number of transmittable modulation
10 symbols, if the number of the channel-interleaved symbols is greater than the number of transmittable modulation symbols; and

modulating the remaining channel-interleaved symbols by the predetermined modulation method.

15 9. The method of claim 8, wherein symbol pruning is performed on the second half of the channel-interleaved symbols of the sub-code.

10. The method of claim 8, wherein symbol pruning for a first time period is performed on the channel-interleaved symbols of a first sub-code
20 generated at the minimum code rate so that the sum of the numbers of preamble symbols and the number of the channel-interleaved symbols of the first sub-code is equal to the number of the transmittable modulation symbols, if the sum of the number of preamble symbols and the number of the channel-interleaved symbols of the first sub-code is greater than the number of transmittable
25 modulation symbols.

11. A device for transmitting packet data, comprising:

a sub-code generator for generating a plurality of sub-codes with the same or different code rates for the input of a PLP (Physical Layer Packet)
30 information bit stream;

a controller for determining a minimum data rate by which the number of the modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for each time period; and

- 5 a symbol pruner for pruning part of the modulation symbols of the sub-code so that the number of the modulation symbols of the sub-code is equal to the number of transmittable modulation symbols for the time period, if the number of the modulation symbols of the sub-code is greater than the number of transmittable modulation symbols for the time period.

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12. The device of claim 11, wherein the symbol pruner prunes part of the second half of the modulation symbols of the sub-code.

13. The device of claim 11, wherein the symbol pruner prunes part
15 of the symbols of a first sub-code so that the sum of the numbers of preamble symbols and the modulation symbols of the first sub-code are equal to the number of the transmittable modulation symbols in a first time period, if the number of the modulation symbols of the first sub-code is greater than the number of transmittable modulation symbols.

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14. A device for transmitting packet data, comprising:

- a sub-code generator for generating a plurality of sub-codes with the same or different code rates for the input of a PLP (Physical Layer Packet) information bit stream and sequentially transmitting the sub-codes for time
25 periods;

a controller for determining a minimum data rate by which the number of the modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for a time period;

- 30 a channel interleaver for channel-interleaving the symbols of the sub-

code generated at the minimum code rate;

a modulator for modulating the channel-interleaved symbols by the predetermined modulation method; and

a symbol pruner for pruning part of the modulation symbols of the sub-code so that the number of the modulation symbols of the sub-code is equal to the number of transmittable modulation symbols for the time period, if the number of the modulation symbols of the sub-code is greater than the number of transmittable modulation symbols for the time period.

15 15. The device of claim 14, wherein the symbol pruner prunes part of the second half of the modulation symbols of the sub-code.

16. The device of claim 14, wherein the symbol pruner prunes part of the symbols of a first sub-code so that the sum of the numbers of preamble symbols and the number of the modulation symbols of the first sub-code is equal to the number of the transmittable modulation symbols in a first time period, if the sum of the number of preamble symbols and the number of the modulation symbols of the first sub-code is greater than the number of transmittable modulation symbols.

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17. A device for transmitting packet data, comprising:

a sub-code generator for generating a plurality of sub-codes with the same or different code rates for the input of a PLP (Physical Layer Packet) information bit stream and sequentially transmitting the sub-codes for time periods;

a controller for determining a minimum data rate by which the number of the modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for a time period;

30 a channel interleaver for channel-interleaving the symbols of the sub-

code generated at the minimum code rate;

a symbol pruner for pruning part of the channel-interleaved symbols so that the number of the channel-interleaved symbols is equal to the number of transmittable modulation symbols, if the number of the channel-interleaved symbols is greater than the number of transmittable modulation symbols; and

a modulator for modulating the remaining channel-interleaved symbols by the predetermined modulation method.

18. The device of claim 17, wherein the symbol pruner prunes part of the second half of the channel-interleaved symbols.

19. The device of claim 17, wherein the symbol pruner prunes part of the channel-interleaved symbols of a first sub-code generated at the minimum code rate so that the sum of the numbers of preamble symbols and the number of the channel-interleaved symbols of the first sub-code is equal to the number of the transmittable modulation symbols in a first time period, if the sum of the number of preamble symbols and the number of the channel-interleaved symbols of the first sub-code is greater than the number of transmittable modulation symbols.

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